
TIME
DOUBLE ISSUE
NOV. 28 / DEC. 5, 2016
THE
MOST
INFLUENTIAL
PHOTOS
OF
ALL TIME
time.com
Plus
A USER'S
GUIDE TO
PRESIDENT
TRUMP



WE SET OUT TO FIND IMAGES THAT CHANGED THE WORLD. ALONG THE WAY, WE UNEARTHED INCREDIBLE STORIES OF HOW THEY WERE MADE

# MOST INFLUENTIAL PHOTOS

◀ *Twelve of the 26 negatives Philippe Halsman took to create* Dalí Atomicus

WE BEGAN THIS PROJECT WITH WHAT SEEMED LIKE A straightforward idea: assemble a list of the 100 most influential photographs ever taken. If a picture led to something important, it would be considered for inclusion. From that simple concept flowed countless decisions. Although photography is a much younger medium than painting—the first photo is widely considered to date from 1826—the astonishing technological advances since its beginning mean that

▸ *Halsman and his camera*

there are now far more pictures taken on any given day than there are canvases in all the world's galleries and museums. In 2016 alone, hundreds of billions of images were made.

How do you narrow a pool that large? You start by calling in the experts. We reached out to curators, historians and photo editors around the world for suggestions. Their thoughtful nominations whittled the field, and then we asked TIME reporters and editors to see whether those held up to scrutiny. That meant conducting thousands of interviews with the photographers, picture subjects, their friends, family members and others—anywhere the rabbit holes led. It was an exhaustive process that unearthed some incredible stories that we are proud to tell for the first time. You'll find a selection in the pages ahead. The complete collection can be found in TIME's new book, *100 Photographs: The Most Influential Images of All Time,* as well as on our multimedia site time.com/100photos, where you can view original documentary films about key works.

There is no formula that makes a picture influential, and a list about influence necessarily leaves off its fair share of iconic pictures and important photographers. A survey class in great photographers would surely include Ansel Adams. And yet no single one of the pictures Adams took inside Yosemite—majestic as they are—could rival in influence Carleton Watkins' work *(page 84),* which led to the creation of the park. Some images are on our list because they were the first of their kind, others because they shaped the way we think. And some made the cut because they directly changed the way we live. What all 100 share is that they are turning points in our human experience.

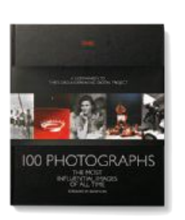
**PHOTOGRAPHY WAS BORN** of a great innovation and is constantly reshaped by new ones. So it is fitting that our definition of an influential photo changes along with the ways pictures are taken and seen. The world first saw Abraham Zapruder's haunting images of John F. Kennedy's assassination not as a moving picture but as a series of frame-by-frame stills published in LIFE magazine. Before televisions were in every home, the photos that ran in LIFE influenced how a lot of people understood their world. When Philippe Kahn rigged his cell phone to take a picture of his newborn daughter nearly 20 years ago *(page 90),* he could scarcely imagine that his invention would change the world.

Now everyone is a photographer, a publisher and a consumer. This has largely been to the good. Our connection with photography is more personal and immediate than ever—that it took several days and multiple flights for Robert Capa's pictures of the D-Day landings to see the light of day seems impossible when today our social-media feeds are bursting with images from every corner of the globe. But the digital revolution has made quantifying influence a particular challenge. Likes and shares are a very real metric, but are they enough? And what of a picture that was never published in a traditional way? Unless you are in viral marketing, there is nothing to admire in the poorly framed, celebrity-packed selfie organized by Ellen DeGeneres at the Oscars in 2014 *(page 90).* Yet the photo's astounding reach through social media makes it one of the most seen images of all time.

In the process of putting together this list, we noticed that one aspect of influence has largely remained constant throughout photography's nearly two centuries: the photographer has to be there. The best photography is a form of bearing witness, a way of bringing a single vision to the larger world. That was as true for Alexander Gardner when he took his horse-pulled darkroom to the Battle of Antietam in 1862 as it was for David Guttenfelder when he became the first professional photographer to post directly to Instagram from inside North Korea in 2013.

James Nachtwey—the photographer who made the deeply moving image *Famine in Somalia (page 80),* among many, many others—has dedicated his life to being there. As he puts it, "You keep on going, keep on sending the pictures, because they can create an atmosphere where change is possible. I always hang on to that."

—BEN GOLDBERGER




▴

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*To buy TIME's special new hardcover book featuring the stories behind all 100 photos, visit* ***shop.time.com***

***The 100 Photographs project was curated and edited by:***

▾

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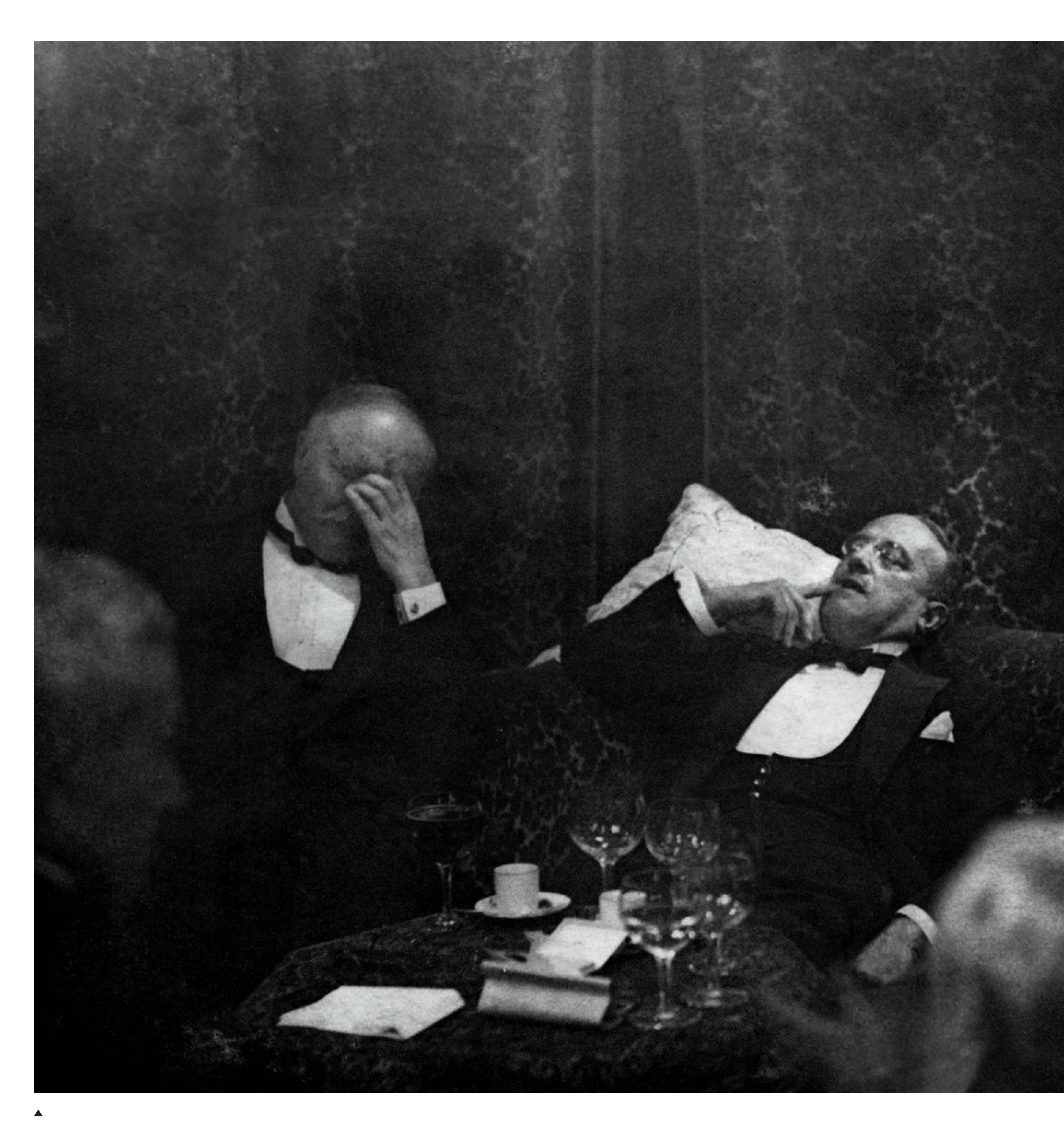
***Ben Goldberger***
*Nation editor*




PREVIOUS PAGES: PHILIPPE HALSMAN; THIS PAGE: LESLIE DAVIS—COURTESY THE HALSMAN ARCHIVE

***'WHAT'S A MEETING THAT ISN'T PHOTOGRAPHED BY SALOMON? PEOPLE WON'T BELIEVE IT'S IMPORTANT AT ALL!'***

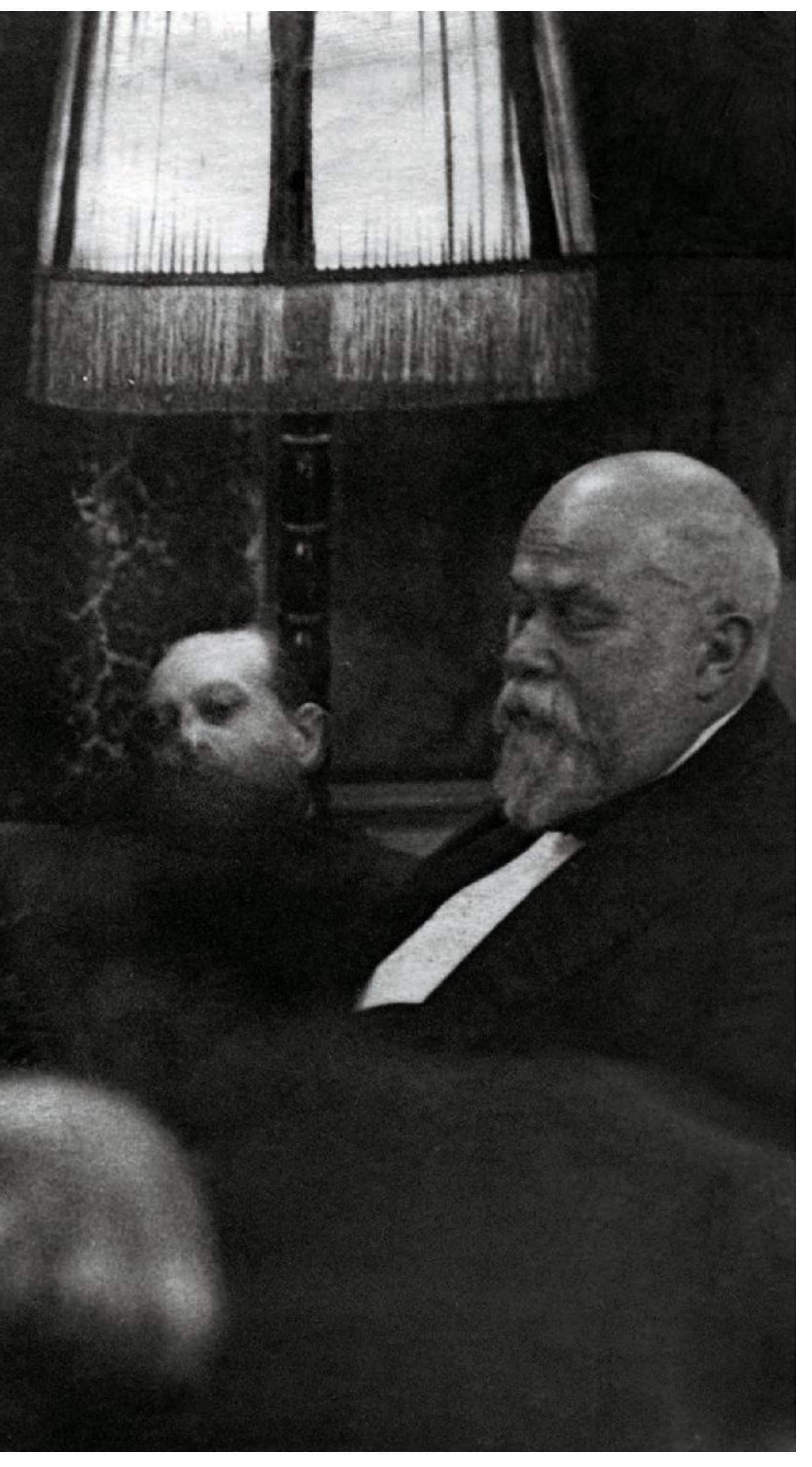
*—Aristide Briand, Prime Minister of France*



▲

The Hague

**Erich Salomon,** *1930*



BPK/SALOMON/ULLSTEIN BILD VIA GETTY IMAGES

# The first behind-the-scenes political photo

Portly statesmen have long gathered to weigh the fate of nations, with cigars and brandy at the ready. But they were always sequestered far from prying eyes. German photojournalist Erich Salomon changed all that, slipping into those smoke-filled back rooms with a small Leica camera built to shoot in low light. Nowhere was his skill on greater display than during a 1930 meeting in the Hague over German World War I reparations. There, at 2 a.m., Salomon candidly shot exhausted Foreign Ministers after a long day of negotiations. The picture created a sensation when it was published in the London *Graphic.* For the first time, the public could look through the doors of power and see world leaders with their guard down. Salomon, who later died in Auschwitz, had created backstage political photojournalism.

Michael Jordan

**"Co" Rentmeester,** *1984*

# The image that made an icon

It may be the most famous silhouette ever photographed. Shooting Michael Jordan for LIFE magazine in 1984, Jacobus "Co" Rentmeester captured the basketball star soaring through the air for a dunk, legs split like a ballet dancer's and left arm stretched to the stars. A beautiful image but one unlikely to have endured had Nike not devised a logo for its young star that bore a striking resemblance to the photo. Seeking design inspiration for its first Air Jordan sneakers, Nike paid Rentmeester $150 for temporary use of his slides from the LIFE shoot. Soon the "Jumpman" logo was etched onto shoes, clothing and bedroom walls around the world, eventually becoming one of the most popular commercial icons of all time.

With Jumpman, Nike created the concept of athletes as valuable commercial properties unto themselves. The Air Jordan brand, which today features other superstar pitchmen, earned $3.2 billion in 2014. Rentmeester, meanwhile, sued Nike for copyright infringement. The case was dismissed, but Rentmeester has appealed. No matter the outcome, his image captures the ascendance of sports celebrity into a multibillion-dollar business, and it's still taking off.

***'IT'S GOTTA BE THE SHOES.'***

***—Nike commercial***



DALÍ ATOMICUS: HALSMAN ARCHIVE



▲

Dalí Atomicus

**Philippe Halsman,** *1948*

# A portrait like no other

***'BEFORE THERE WAS PHOTOSHOP, THERE WAS PHILIPPE.'***

***—Irene Halsman, daughter of Philippe Halsman***

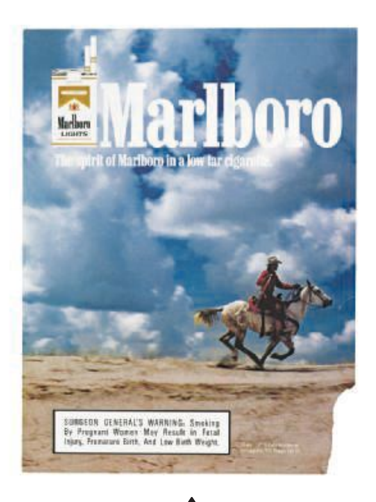
Capturing the essence of his subjects was Philippe Halsman's lifework. So when Halsman set out to shoot the Surrealist painter Salvador Dalí, his friend and longtime collaborator, he knew a simple seated portrait would not suffice. Inspired by Dalí's painting *Leda Atomica,* Halsman created an elaborate scene to surround the artist that included the original work, a floating chair and an in-progress easel suspended by thin wires. Assistants, including Halsman's wife and young daughter Irene, stood out of the frame and, on the photographer's count, threw three cats and a bucket of water into the air while Dalí leaped. It took the assembled cast 26 takes to capture a composition that satisfied Halsman. And no wonder. The final result, published in LIFE magazine, evokes Dalí's own work. The artist even painted an image directly onto the print before publication.

Before Halsman, portrait photography was often stilted and softly blurred, with a clear sense of detachment between the photographer and the subject. Halsman's approach, which brought people such as Albert Einstein, Marilyn Monroe and Alfred Hitchcock into sharp focus as they moved before the camera, imbued a staid form with action, redefining portrait photography and inspiring generations of photographers to collaborate with their subjects.

▸ *To watch an original documentary about this photo, visit* **time.com/DaliAtomicus**

# The ultimate appropriation

The idea for the project that would challenge everything sacred about ownership in photography came to Richard Prince when he was working in the tear-sheet department at Time Inc. While he literally deconstructed the pages of magazines for the archives, Prince's attention was drawn to the ads that appeared alongside articles. One in particular caught his eye: the macho image of the Marlboro Man riding a horse under blue skies. And so, in a process he came to call "rephotography," Prince took pictures of the ads and cropped out the type, leaving only the iconic cowboy and his surroundings. That Prince didn't take the original picture meant little to collectors. In 2005, *Untitled (Cowboy)* sold for $1.2 million at auction, then the highest publicly recorded price for the sale of a contemporary photograph. Others were less enthusiastic. Prince was sued by a photographer for using copyrighted images, but the courts ruled largely in Prince's favor. That wasn't his only victory. Prince's rephotography helped create a new art form—photography of photography—that foreshadowed the era of digital sharing and upended our understanding of a photo's authenticity and ownership.




*The original Marlboro cigarette ad that Richard Prince turned into his controversial* Untitled (Cowboy)



Untitled (Cowboy)

**Richard Prince,** *1989*

▸ *To watch an original documentary about this photo, visit* **time.com/cowboy**



***'I WAS TRYING TO AVOID ANY REFERENCE TO THE FACT THAT I WAS ACTUALLY COPYING A PAGE FROM A MAGAZINE, OR THE DOT PATTERN, THE PRINTED QUALITY. I WAS TRYING TO MAKE THE PHOTOGRAPH AS MUCH MINE AS POSSIBLE.'***

*—Richard Prince*

MARLBORO AD: DIGITAL IMAGE COURTESY OF THE SOLOMON R. GUGGENHEIM MUSEUM, NEW YORK

***'I ALSO WAS THINKING IF I GET A PICTURE OF THIS, AT LEAST PEOPLE WILL BELIEVE THAT IT REALLY HAPPENED.'***

*—Donna Ferrato*



▲

## Behind Closed Doors

**Donna Ferrato,**
*1982*

▸ *To watch an original documentary about this photo, visit* **time.com/DomesticViolence**



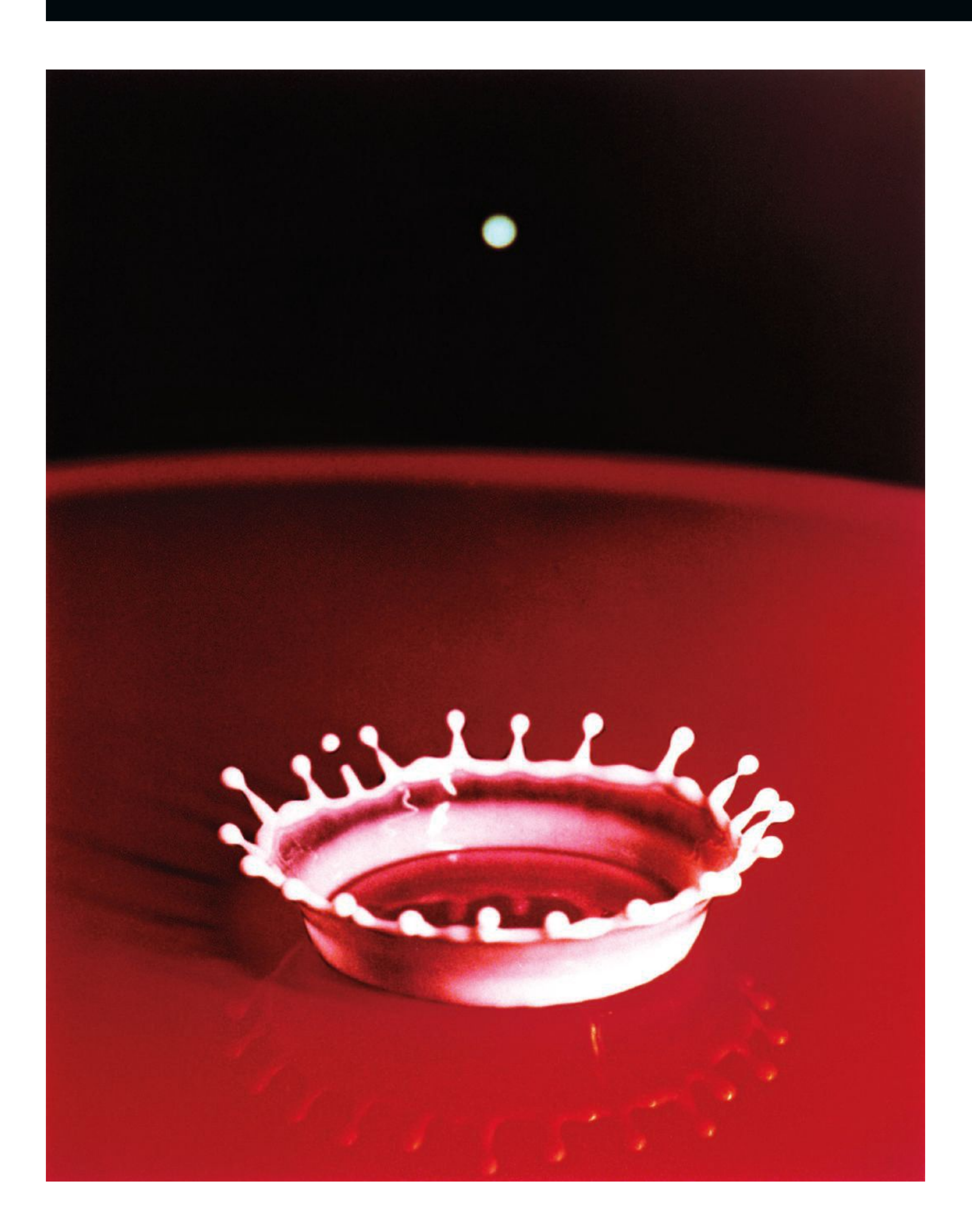
# The photo that brought domestic violence out of the shadows

There was nothing particularly special about Garth and Lisa or the violence that happened in the bathroom of their suburban New Jersey home one night in 1982. Enraged by a perceived slight, Garth beat his wife while she cowered in a corner. Such acts of partner violence are not uncommon, but they usually happen in private. This time, another person was in the room: photographer Donna Ferrato.

Ferrato, who had come to know the couple through a photo project on wealthy swingers, knew that simply bearing witness wasn't enough. Her shutter clicked again and again. She approached magazine editors to publish the images, but all refused. So Ferrato did it herself, in her 1991 book *Living With the Enemy.* The landmark volume chronicles episodes of domestic violence and their aftermath, including those of the pseudonymous Lisa and Garth. Their real names are Elisabeth and Bengt; his identity was revealed for the first time as part of this project. Ferrato also captured incidents and victims while living inside women's shelters and trailing police. Her work helped bring violence against women out of the shadows and forced policymakers to confront the issue. In 1994, Congress passed the Violence Against Women Act, increasing penalties against offenders and helping train police to treat it as a serious crime. Thanks to Ferrato, a private tragedy became a public cause.



*Elisabeth, who was identified by the pseudonym Lisa in the image above, photographed by Ferrato in 2015. She became a domestic-violence activist after ending her abusive relationship*



***‘SECONDS. THERE IT IS. SOMETIMES IT’S NO USE AT ALL. SOMETIMES IT’S TREMENDOUS VALUE.’***

*—Harold Edgerton*

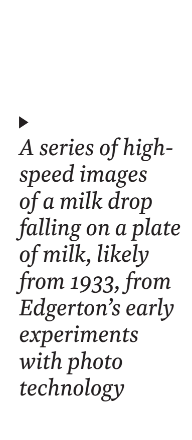
# The image that stopped time

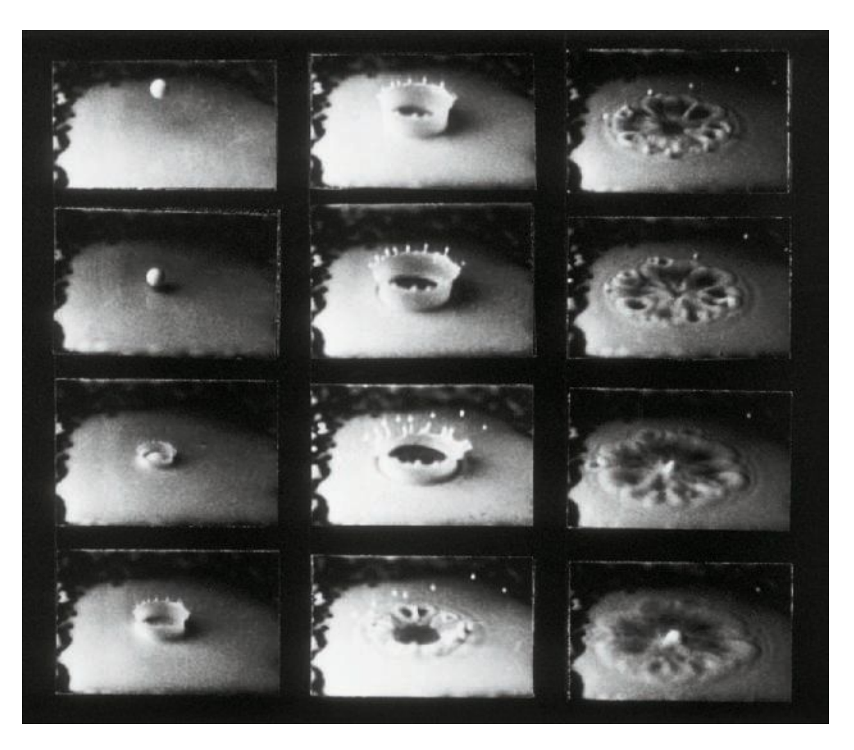
Before Harold Edgerton rigged a milk dropper next to a timer and a camera of his own invention, it was virtually impossible to take a good photo in the dark without bulky equipment. It was similarly hard to photograph a fleeting moment. But in the 1950s in his lab at MIT, Edgerton was tinkering with a process that would change the future of photography. There the electrical-engineering professor combined high-tech strobe lights with camera shutter motors to capture moments imperceptible to the naked eye. *Milk Drop Coronet,* his revolutionary stop-motion photograph, freezes the impact of a drop of milk on a table, a crown of liquid discernible to the camera for only a millisecond. The picture proved that photography could advance human understanding of the physical world, and the technology Edgerton used to take it laid the foundation for the modern electronic flash.

Edgerton worked for years to perfect his milk-drop photographs, many of which were black and white; one version was featured in the first photography exhibition at New York City’s Museum of Modern Art, in 1937. And while the man known as Doc captured other blink-and-you-missed-it moments, like balloons bursting and a bullet piercing an apple, his milk drop remains the quintessential example of photography’s ability to make art out of evidence.

◂ Milk Drop Coronet

**Harold Edgerton,** *1957*





▸ *A series of high-speed images of a milk drop falling on a plate of milk, likely from 1933, from Edgerton’s early experiments with photo technology*

▸ *To watch an original documentary about this photo, visit* **time.com/MilkDrop**

# How a picture can save 1.5 million lives

***'IF PEOPLE ARE IN NEED, OR IF THEY ARE SUFFERING, IT DOES NOT MEAN THEY DON'T EXPRESS DIGNITY.'***
*—James Nachtwey*

James Nachtwey says he couldn't get an assignment in 1992 to document the spiraling famine in Somalia. Mogadishu had become engulfed in armed conflict as food prices soared and international assistance failed to keep pace. Yet few in the West took much notice, so the American photographer went on his own to Somalia, where he received support from the International Committee of the Red Cross (ICRC). Nachtwey brought back a cache of haunting images, including this scene of a woman waiting to be taken in a wheelbarrow to a feeding center. After it was published as part of a cover feature in the New York *Times* Magazine, one reader wrote, "Dare we say that it doesn't get any worse than this?" The world was similarly moved. The Red Cross said public support resulted in what was then its largest operation since World War II. One and a half million people were saved, the ICRC's Jean-Daniel Tauxe told the *Times,* and "James' pictures made the difference."

Famine in Somalia

**James Nachtwey,** *1992*

▼



KURDI: AP




▲
Alan Kurdi

**Nilüfer Demir,**
*2015*

# The photograph that opened borders

The war in Syria had been going on for more than four years when Alan Kurdi's parents lifted the 3-year-old boy and his 5-year-old brother into an inflatable boat and set off from the Turkish coast for the Greek island of Kos, just three miles away. But within minutes after they pushed off, a wave capsized the vessel, and the mother and both sons drowned. On the shore near the coastal town of Bodrum a few hours later, Nilüfer Demir of the Dogan News Agency came upon Alan, his face turned to one side and bottom elevated as if he were just asleep. "There was nothing left to do for him. There was nothing left to bring him back to life," she said. So Demir raised her camera. "I thought, This is the only way I can express the scream of his silent body."

The resulting image became the defining photograph of an ongoing war that had killed some 220,000 people by the time Demir pressed her shutter. Yet it wasn't taken in Syria, a country the world preferred to ignore, but on the doorstep of Europe, where its refugees were heading. Dressed for travel, the child lay between one world and another; waves had washed away any chalky brown dust that might locate him in a place foreign to Westerners' experience. The Kurdis sought that experience for themselves, joining a migration fueled as much by aspiration as desperation. The family had already escaped bloodshed when they arrived in Turkey; they died trying to reach a better life.

Demir's image whipped around social media within hours, accumulating potency with every share. News organizations were compelled to publish it—or publicly defend their decision not to. European governments were persuaded to open closed frontiers. Within a week, trainloads of Syrians were arriving in Germany to cheers, as a war lamented but not felt suddenly brimmed with emotions unlocked by a picture of one small, still form.

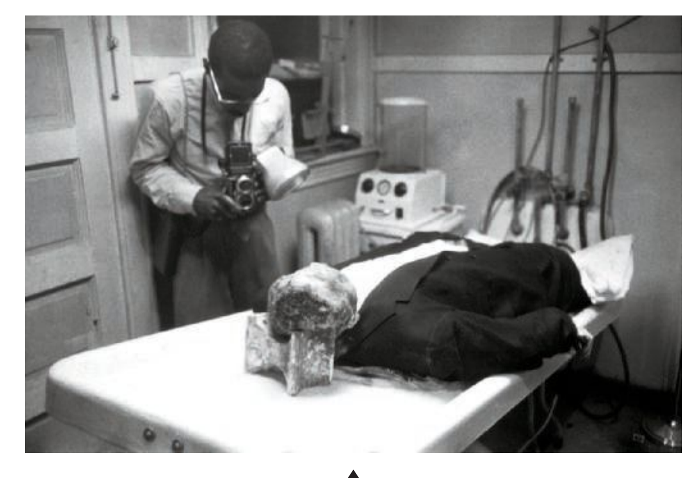
***'AS A FATHER, I FELT DEEPLY MOVED BY THE SIGHT OF THAT YOUNG BOY ON A BEACH IN TURKEY.'***

***—David Cameron, then British Prime Minister***

# The photo that proved a black life matters

In August 1955, Emmett Till, a black teenager from Chicago, was visiting relatives in Mississippi when he stopped at Bryant's Grocery and Meat Market. There he encountered Carolyn Bryant, a white woman. Whether Till really flirted with Bryant or whistled at her isn't known. But what happened four days later is. Bryant's husband Roy and his half brother, J.W. Milam, seized the 14-year-old from his great-uncle's house. The pair then beat Till, shot him, strung barbed wire and a 75-lb. metal fan around his neck and dumped the lifeless body in the Tallahatchie River. A white jury quickly acquitted the men, with one juror saying it had taken so long only because they had to break to drink some pop.

When Till's mother Mamie came to identify her son, she told the funeral director, "Let the people see what I've seen." She brought him home to Chicago and insisted on an open casket. Tens of thousands filed past Till's remains, but it was the publication of the searing image in *Jet,* with a stoic Mamie gazing at her murdered child's ravaged body, that forced the world to reckon with the brutality of American racism. For almost a century, African Americans were lynched with regularity and impunity. Now, thanks to a mother's determination to expose the barbarousness of the crime, people could no longer pretend to ignore what they couldn't see.



*David Jackson photographing Emmett Till's mutilated body in 1955*

Emmett Till

**David Jackson,** *1955*

*To watch an original documentary about this photo, visit* **time.com/EmmettTill**

***'WHEN PEOPLE SAW WHAT HAD HAPPENED TO MY SON, MEN STOOD UP WHO HAD NEVER STOOD UP BEFORE.'***

*—Mamie Till-Mobley*



ALL: COURTESY JOHNSON PUBLISHING CO. LLC



Earthrise

**William Anders, NASA,** *December 1968*

# Our world in living color

It's never easy to identify the moment a hinge appears in history. When it comes to humanity's first true grasp of the beauty, fragility and loneliness of our world, however, we know the precise instant. It was on Dec. 24, 1968, exactly 75 hr. 48 min. 39 sec. after the Apollo 8 spacecraft lifted off from Cape Canaveral en route to becoming the first manned mission to orbit the moon. Astronauts Frank Borman, Jim Lovell and Bill Anders entered lunar orbit on Christmas Eve of what had been a bloody, war-torn year for America. At the beginning of the fourth of 10 orbits, their spacecraft was emerging from the far side of the moon when a view of the blue-white planet filled one of the side windows. "Oh my God! Look at that picture over there! Here's the Earth coming up. Wow, is that pretty!" Anders exclaimed. He snapped a picture—in black and white. Lovell scrambled to find a color canister. "Well, I think we missed it," Anders said. Lovell looked through windows three and four. "Hey, I got it right here!" he exclaimed. A weightless Anders shot to where Lovell was floating and fired his Hasselblad. "You got it?" Lovell asked. "Yep," Anders answered. The image—our first full-color view of our planet from off of it—helped launch the environmental movement, letting human beings see that in a cold and punishing cosmos, Earth is something truly extraordinary.

***'IT WAS THE FIRST TIME THAT PEOPLE ACTUALLY KNEW WHAT THE EARTH LOOKED LIKE.'***

*—William Anders*



Cathedral Rock, Yosemite

**Carleton Watkins,** *1861*

EARTHRISE: NASA; ALL OTHERS: COURTESY OF THE GETTY'S OPEN CONTENT PROGRAM

**'A PERFECTION OF ART WHICH COMPARES WITH THE FINEST EUROPEAN WORK.'**

—*Oliver Wendell Holmes Sr.*

# The image that created the national parks

Decades before Ansel Adams ever saw Yosemite's jagged peaks, Carleton Watkins packed his mammoth plate camera, tripods and a makeshift tent darkroom onto mules and ventured into the remote California valley. When he returned, Watkins had 130 negatives that offered the first widely printed images of Yosemite's towering masses, glacial geology and jaw-dropping expanse. The photos, including Watkins' intimate view of the majestic Cathedral Rock, floored the growing nation's power brokers. John Conness, a U.S. Senator from California, owned a set of the prints and became an evangelist for the work. On June 30, 1864, President Abraham Lincoln signed into law the Yosemite Grant Act, laying the foundation for the National Park System. Today the system protects some 84 million acres of land for public use.









▲ *Four of 30 mammoth plate photos from Watkins' portfolio of the Yosemite Valley, which are said to have inspired Abraham Lincoln to make Yosemite a national park*

Windblown Jackie

**Ron Galella,**
*October 1971*

# The perfect paparazzi moment

People simply could not get enough of Jacqueline Kennedy Onassis, the beautiful young widow of the slain President who married a fabulously wealthy Greek shipping tycoon. She was a public figure with a tightly guarded private life, which made her a prime target for the photographers who followed wherever she went. And none were as devoted to capturing the former First Lady as Ron Galella. One of the original freewheeling celebrity shooters, Galella created the model for today's paparazzi with a follow-and-ambush style that ensnared everyone from Michael Jackson and Sophia Loren to Marlon Brando, who so resented Galella's attention that he knocked out five of the photographer's teeth. But Galella's favorite subject was Jackie O., whom he shot to the point of obsession. It was Galella's relentless fixation that led him to hop in a taxi and trail Onassis after he spotted her on New York City's Upper East Side in October 1971. The driver honked his horn, and Galella clicked his shutter just as Onassis turned to look in his direction. "I don't think she knew it was me," he recalled. "That's why she smiled a little." The picture, which Galella proudly called "my Mona Lisa," exudes the unguarded spontaneity that marks a great celebrity photo. "It was the iconic photograph of the American celebrity aristocracy, and it created a genre," says writer Michael Gross. The image also tested the blurry line between newsgathering and the personal rights of a public figure. Onassis, who resented the constant attention, was twice embroiled in court with Galella and eventually got him barred from photographing her family. No shortage of others followed in his wake.

***'ON THE CORNER, I DID A BRILLIANT THING. I TOOK A TAXI BECAUSE YOU HAVE TO HIDE TO GET THE OFF-GUARD PICTURE.'***

*—Ron Galella*



*Galella photographs Jackie Onassis on Oct. 7, 1971, in New York City*

*To watch an original documentary about this photo, visit* **time.com/WindblownJackie**



WINDBLOWN JACKIE: WIREIMAGE/GETTY IMAGES; GALELLA: COURTESY RON GALELLA ARCHIVE

***'I DIDN'T KNOW THAT IT WAS GOING TO BE THE PHOTO THAT CHANGED HOW PEOPLE LOOKED AT AIDS.'*** *—Therese Frare*



*To watch an original documentary about this photo, visit* **time.com/AIDS**





The Face of AIDS

**Therese Frare,** *1990*

# The picture that humanized AIDS

David Kirby died surrounded by his family. But Therese Frare's photograph of the 32-year-old man on his deathbed did more than just capture the heartbreaking moment. It humanized AIDS, the disease that killed Kirby, at a time when it was ravaging people largely out of public view. Frare's photograph, published in LIFE magazine in 1990, showed how the widely misunderstood disease devastated more than just its victims. It would be another year before the red ribbon became a symbol of compassion and resilience, and three years before President Bill Clinton created a White House Office of National AIDS Policy. By then, the clothing company Benetton had used a colorized version of Frare's photograph in a series of provocative ads. Many magazines refused to run it, and a range of groups called for a boycott. But Kirby's family consented to its use, believing that the ad helped raise critical awareness about the disease at a moment when it was still uncontrolled and sufferers were lobbying the federal government to speed the development of new drugs. "We just felt it was time that people saw the truth about AIDS," Kirby's mother Kay said. Thanks to Frare's image, they did.




*A colorized version of Frare's image was used in a Benetton ad campaign in 1992, increasing its exposure while sparking a heated debate*





▲ First Cell-Phone Picture

**Philippe Kahn,** *1997*

# The moment that made us all photographers

Boredom can be a powerful incentive. In 1997, Philippe Kahn was stuck in a Northern California maternity ward with nothing to do. The software entrepreneur had been shooed away by his wife while she gave birth to their daughter Sophie. So Kahn, who had been tinkering with technologies that share images instantly, jerry-built a device that could send a photo of his newborn to friends and family—in real time. As with any invention, the setup was crude: a digital camera connected to his flip-top cell phone, synched by a few lines of code he'd written on his laptop in the hospital. But the effect of it has transformed the world.

Kahn's device captured his daughter's first moments and transmitted them instantly to more than 2,000 people. He soon refined his ad hoc prototype, and in 2000, Sharp used his technology to release the first commercially available integrated camera phone, in Japan. The phones were introduced to the U.S. market a few years later and soon became ubiquitous. Kahn's invention forever altered how we communicate and perceive and experience the world, and laid the groundwork for smartphones and photo-sharing applications like Instagram and Snapchat. Phones are now used to send hundreds of millions of images around the world every day—including a fair number of baby pictures.

***'THE CAMERA PHONE WAS BORN IN SANTA CRUZ ON JUNE 11, 1997, AT THE SUTTER MATERNITY CLINIC.'***

***—Philippe Kahn***

OSCARS: ELLEN DEGENERES—TWITTER VIA GETTY IMAGES; CELL-PHONE PICTURE: COURTESY FULLPOWER TECHNOLOGIES

*'IT WAS THIS INCREDIBLE MOMENT OF SPONTANEITY THAT I WILL NEVER FORGET. AND THANKS TO THE SELFIE, NEITHER WILL ANYONE ELSE.'*
*—Ellen DeGeneres*



▲ Oscars Selfie
**Bradley Cooper,** *2014*

# The world's most valuable selfie

It was a moment made for the celebrity-saturated Internet age. In the middle of the 2014 Oscars, host Ellen DeGeneres waded into the crowd and corralled some of the world's biggest stars to squeeze in for a selfie. As Bradley Cooper held the phone, Meryl Streep, Brad Pitt, Jennifer Lawrence and Kevin Spacey, among others, pressed their faces together and mugged. But it was what DeGeneres did next that turned a bit of Hollywood levity into a transformational image. After Cooper took the picture, DeGeneres immediately posted it on Twitter, where it was retweeted over 3 million times, more than any other photo in history.

It was also an enviable advertising coup for Samsung. DeGeneres used the company's phone for the stunt, and the brand was prominently displayed in the program's televised "selfie moment." Samsung has been coy about the extent of the planning, but its public relations firm acknowledged that the photo's value could be as high as $1 billion. That would never have been the case were it not for our increasing connectivity and the ever more important role images play in our lives.

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# TimeOff



2016

## HOLIDAY FILM PREVIEW

**DRAMA:** *The true story of the black scientists who plotted America's journey into space* **ACTION:** *The next* Star Wars *explores a multicultural universe* **COMEDY:** *Hailee Steinfeld puts a fresh spin on the teen dream* **FAMILY:** *Eddie Redmayne introduces us to fantastic beasts*

PHOTOGRAPH BY NINO MUÑOZ

AMERICAN VOICES

# HIDDEN FIGURES CALCULATES THE SUM OF A STORY UNTOLD

By Eliza Berman

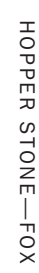
^ *Henson, Spencer and Monáe play NASA's "colored computers"*

KATHERINE JOHNSON WAS ALWAYS RUNNING. SHE RAN, several times a day, the half mile from her desk at NASA to the "colored ladies'" restroom on the other side of Virginia's Langley Research Center, toting binders full of calculations so as not to lose precious time that—this being the height of the space race—the Soviets no doubt were using well. She ran around her home, chasing three daughters whose father had died of a brain tumor. And she ran, on a February afternoon in 1962, from the West Area Computing Unit back to Mission Control when John Glenn refused to take off on his orbit around Earth until Johnson, and only Johnson, double-checked his launch calculations.

When Taraji P. Henson, who plays the sprinting space scientist, read the script for *Hidden Figures,* Theodore Melfi's drama about the black female mathematicians, engineers and programmers who helped get Americans into space, her knee-jerk reaction was anger. "I was like, What?" she recalls. "I'm 46, I went to college, and I don't know this?" Henson's co-stars—Janelle Monáe, who plays engineer Mary Jackson, and Octavia Spencer, who plays supervisor Dorothy Vaughan—both assumed they were reading a work of fiction.

"It's cognitive dissonance," says Spencer. "Black women being recruited to work as mathematicians at NASA's southern installation defies what we think we know about American history." Not to mention how Hollywood, historically, has depicted it. Consider movies about geniuses, like *Good Will Hunting, A Beautiful Mind, Amadeus, The Theory of Everything, The Social Network.* The brainiacs at the chalkboard, the piano and the computer are almost always white, almost always male. Consider films about accomplished black women—like Tina Turner, Josephine Baker, Billie Holiday—all singularly talented, but all entertainers. "We are tired, as consumers, of seeing the same protagonist be the hero," says Monáe. "We need new heroes, and these women are new heroes for us."

**THE PHRASE** *colored computer* may bring to mind the candy-hued Apple iMac of the late 1990s, but in the early 1960s, it referred to the African-American female mathematicians who performed calculations and plotted data in NASA's research divisions. Although white women had been employed in these roles since the 1930s, black women were not considered for them until 1943. With men at war and an Executive Order from President Roosevelt prohibiting discrimination in the defense industry, doors began to open for talented black



mathematicians.

The story of Johnson, Jackson, Vaughan and their comrades in computation surfaced thanks to Margot Lee Shetterly, whose father worked at NASA with them, and who began work in 2014 on a book about them—now a best seller—also called *Hidden Figures*. Producer Donna Gigliotti optioned the rights the day after reading the proposal, Melfi backed out of talks to direct a *Spider-Man* movie, and Pharrell Williams, a space junkie who grew up near the subjects' homes in Hampton, Va., signed on to produce and work on the score.

Filming in the Georgia heat this past summer, the actors formed a sisterhood inspired by their characters. "You saw these women vent to one another, encourage each other," says Monáe. "They were dealing with obstacles and had reason to give up. But the relationships they had with one another gave them fuel to go on."

There is more than a whiff of the classic American up-by-the-bootstraps narrative in each of their stories. Jackson petitions the city of Hampton to take courses at its whites-only high school so she can qualify to train as an engineer. Vaughan teaches herself programming when the arrival of computers threatens to make her job obsolete. But *Hidden Figures,* which will hit theaters on Christmas Day, downplays individual success in favor of the collective: these women pull one another up. Vaughan, in limbo as an undercompensated "acting" supervisor, laments her stagnation but rejoices in Johnson's promotion to work on the calculations that will get Glenn, Alan Shepard and the Apollo 11 astronauts into space. "Any upward movement," she declares, "is movement for us all."

**"NASA: FAST WITH ROCKET SHIPS,** slow with advancement." This is how the women of *Hidden Figures* describe their employer, an agency that relies on inertia to keep its shuttles on their flight paths but maintained a different kind of inertia on the ground—one that kept



VAUGHAN, JOHNSON, JACKSON: NASA

**NASA'S UNSUNG HEROES**

Vaughan *(top left)* was NASA's first black manager. Johnson *(right),* now 98, received the Presidential Medal of Freedom in 2015 for her crucial calculations. Jackson was one of NASA's first black engineers.

the colored computers stalled at the intersection of sexism and racism.

The movie's white characters are not monolithic villains but humans whose attitudes toward their black colleagues fall on a spectrum: there's the mission-driven color blindness of the boss (Kevin Costner), who doesn't care who does the calculations as long as they're correct. There's Jim Parsons' head engineer, who can't decide whether he's more threatened by Johnson's gender, her race or the possibility that she might be better at math. And then there's Kirsten Dunst's supervisor, perhaps most insidious of all, whose claims of goodwill are not backed by a genuine belief in equality.

When Dunst's character has a run-in with Vaughan in the bathroom (more than a few critical moments take place there), she tells her, "I have nothing against y'all," to which Vaughan replies, "I know you probably believe that." Spencer sees, in their confrontation, a lesson. "A lot of people don't see that their views could be hurtful. The only way you find out is if you have discourse. When you point a finger at somebody, all they see is the finger in their face."

Fifty years later, Americans find themselves living with divisions wider than the passage of half a century might suggest. "We still have unfinished business," says Monáe. "Right now in America, sexism and racism are alive and well. We can't just hit the cruise control and think we're going to get there in time to save this next generation." For Henson, Johnson's story is an appeal for unity and mutual respect: "You're in a war, you're fighting with a soldier, and he saves your life. Do you give a damn what color he is? What bible he reads?"

When we watch movies to learn about the past, we're also scanning for insight into the future. Johnson, Jackson and Vaughan could be to young girls what Cicely Tyson and Oprah Winfrey were to a young Spencer, who dreamed of acting—to borrow a phrase from transgender activist and actor Laverne Cox—possibility models. Confirmation, in other words, that a path has been walked before and is available to those watching, too. For women of color, those onscreen models were, for so long, limited—to the maid, the jezebel, the sassy friend. The greatest equation *Hidden Figures* leaves unsolved may be whose story we'll see next, and what moonshot she'll be running to achieve.

Partway through the film, the cadre of mathematicians learns that rather than getting laid off as a result of the new IBM, they'll be reassigned to help process its endless data. As they exit the windowless room in which they've toiled for years, headed for the center of NASA's Virginia universe, trumpets blare as though they're marching into battle. But it's kitten heels, not combat boots, tapping cadence on the linoleum floor. And instead of firepower, they're armed with brainpower. ◻

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